AIR EMISSION PERMIT NO. 11100077- 001

IS ISSUED TO

Otter Tail Ag Enterprises LLC

OTTER TAIL AG ENTERPRISES LLC
Western Half of Section 20
Township 133N
Fergus Falls, Otter Tail County, MN 56537

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	April 24, 2006

This permit authorizes the Permittee to operate and construct the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: State; Limits to Avoid Pt 70/Limits to Avoid NSR

Issue Date: October 25, 2006

Expiration: Non-Expiring
All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Bradley Moore
Acting Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Otter Tail Ag Enterprises LLC is a fuel-grade ethanol production facility to be located near Fergus Falls, Minnesota, in the western half of Section 20, Township 133N. The facility has a design capacity of 65 million gallons of undenatured ethanol. The plant will also produce Distillers Dried Grains and Solubles (DDGS) for animal feed as a by-product of the ethanol production process. Emission sources at the facility include fermentation, distillation, DDGS handling and drying, combustion sources, storage tanks, production loadout, and fugitive sources such as grain handling and dust from haul roads.

The primary emissions are Volatile Organic Compounds (VOC), Particulate Matter (PM) Particulate Matter less than 10 um in size (PM_{10}), Nitrogen oxides (NO_x), and Carbon Monoxide (CO). VOCs are emitted by fermentation, distillation, DDGS drying, wetcake production and storage, ethanol loading, and VOC liquid storage and piping. PM/PM_{10} is emitted by DDGS handling and drying, corn receiving and handling, and vehicle traffic. NO_x and CO are emitted by combustion sources.

The primary pieces of control equipment are fabric filters, wet scrubbers, multiclones and a thermal oxidizer. The scrubber controls emissions from the fermentation and distillation units including the beer well, evaporators and centrifuges; and the thermal oxidizer controls emissions from the Dryers, distillation process and DDGS coolers. A flare is use to control emissions from truck and rail ethanol loadout. Baghouses control PM/PM_{10} from the corn and DDGS handling and storage systems and the Truck/Rail Loadout area. There are internal floating roof tanks for ethanol, denaturant, and denatured ethanol. Emissions from process valves and piping will be controlled through an inspection and maintenance program.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Otter Tail Ag Enterprises LLC

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Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: **Total Facility**

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
Production: less than or equal to 65 million gallons/year using 12-month Rolling Sum of fuel ethanol (pure ethanol, prior to addition of denaturant,) to be calculated by the 15th day of each month for the previous 12-month period.	Title 1 Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Recordkeeping: By the 15th day of each month, record the gallons of ethanol produced during the previous month and the gallons of ethanol produced during the previous 12 months, (12-month rolling sum.)	Title 1 Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.0300. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
HAP-Single: less than or equal to 9.0 tons/year using 12-month Rolling Sum . Compliance with VOC limits and control listed in subject items SV 026, SV 027, & SV 028 ensures compliance with this limit unless performance testing results in higher HAP emissions than projected. (See SV 026 for mitigation measures.)	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
HAPs - Total: less than or equal to 24.0 tons/year using 12-month Rolling Sum . Compliance with VOC limits and control listed in subject items SV 026, SV 027, & SV 030 ensures compliance with this limit unless performance testing results in higher HAP emissions than projected.	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
OPERATIONAL REQUIREMENTS	hdr
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Odor: The Permittee shall comply with the plan for odor management, submitted by the Permittee and attached in Appendix IV of this permit.	Minn. R. 7007.0800, subp. 2
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr

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If the Permittee chooses to install propane back-up, the Permittee shall conduct a compliance test for NOx emissions while firing Propane and determine either an annual hourly limit or a capacity factor based on the test data to limit annual NOx emissions from the combustion units to the limits in this permit. The annual hourly limit or capacity factor will become an enforceable limit in this permit.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Performance Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
MODELING REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080.
Parameters Used in Modeling: The parameters used in the modeling performed for an Environmental Assessment Worksheet under Minn. R. ch. 4410 and for determining emission and/or operational limits, if applicable for this facility are listed in Appendix III of this permit. If the Permittee intends to change any of these parameters, the Permittee must submit the revised parameters to the Commissioner and receive written approval before making any changes. The revised parameter information submittal must include, but is not limited to: the locations, heights and diameters of the stacks; locations and dimensions of nearby buildings; velocity and temperatures of the gases emitted; and the emission rates. The plume dispersion characteristics due to the parameter revisions must equal or exceed the dispersion characteristics modeled for this permit, and the Permittee shall demonstrate this in the proposal.	Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2
Parameters Used in Modeling (continued): If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.	CONTINUED: Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2
Parameters Used in Modeling (continued): For changes that do not involve an increase in an emission rate and that do not require a permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter.	CONTINUED: Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2

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Parameters Used in Modeling (continued): For changes involving increases in emission rates and that require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter. For changes involving increases in emission rates and that require a permit amendment other than a minor amendment, the proposal must be submitted prior to or with the permit amendment application. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	CONTINUED: Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2
The Permittee shall install fencing around the Facility. The fencing shall be fully installed prior to receipt of corn at the Facility. In areas where fencing is not permissible by set-backs, right-of-ways, safety concerns, or clearances, the Permittee will commit to installation of signage and patrolling to sufficiently restrict public access to the property outlined as fenced in the dispersion modeling.	Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2
The Permittee shall submit a Diesel Emission Idling Prevention Plan within 180 days after Permit Issuance. The plan must be reviewed and approved by the MPCA.	Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1

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Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever your facility fully updates and resubmits their RMP. Submit RMPs to the Risk Management Plan Reporting Center, P.O. Box 1515, Lanham-Seabrook, Maryland 20703-1515. RMP information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346.	40 CFR pt. 68

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Subject Item: **GP 001 Tanks subject to NSPS Subpart Kb**

Associated Items: CE 033 Other

CE 034 Other

CE 035 Other

CE 036 Other

CE 037 Other

SV 029 TK001 200 Proof EtOH 1

SV 030 TK002 200 Proof EtOH 2

SV 031 TK003 Denaturant Tank

SV 032 TK004 Denatured Ethanol Tank 1

SV 033 TK005 Denatured Ethanol Tank 2

TK 001 200 Proof Tank

TK 002 200 Proof Tank

TK 003 Denaturant Storage Tank

TK 004 Denatured Ethanol Tank 1

TK 005 Denatured Ethanol Tank 2

What to do	Why to do it
POLLUTION CONTROL REQUIREMENTS	hdr
The storage vessel shall be equipped with a fixed roof in combination with an internal floating roof meeting the requirements of 40 CFR Section 60.112b(a)(1).	40 CFR Section 60.112b(a); Minn. R. 7011.1520(C)
The seals on the internal floating roof shall be liquid mounted, consist of two continuous seals, or be of mechanical shoe design meeting the specifications of 40 CFR 60.112b (a)(1)	40 CFR Section 60.112b (a)(1); Minn. R. 7011.1520(C)
MONITORING REQUIREMENTS	hdr
Inspection - Prior to initial fill of tanks: Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.	40 CFR Section 60.113b(a)(1); Minn. R. 7011.1520(C)
Inspection - Annual: Visually inspect the internal floating roof, the primary seal, and the secondary seal through manholes and roof hatches on the fixed roof at least once every twelve (12) months after initial fill as required by 40 CFR Section 60.113b(a)(2). This requirement applies to vessels equipped with a liquid-mounted or mechanical shoe primary seal and is optional for vessels equipped with a double-seal system as specified in 40CFR Section 60.112b(a)(1)(ii)(B). If a failure that is detected during inspection cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 60.115b. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.	40 CFR Section 60.113b(a)(3)(ii) and/or 40 CFR Section 60.113b(a)(2); Minn. R. 7011.1520(C)
Inspection - Tank Empty and Degassed: Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed, as required by 40 CFR Section 60.113b(a)(4). In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years or at intervals no greater than 5 years for vessels equipped with a double-seal system as specified in 40 CFR Section 60.112b(a)(1)(ii)(B) and opting out of annual visual inspection as specified in 40 CFR Section 116b(a)(2) and 40 CFR Section 60.113b(a)(3)(i).	40 CFR Section 60.113b(a)(3)(ii) and/or 40 CFR Section 60.113b(a)(4); Minn. R. 7011.1520(C)
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity. These records shall be maintained for the life of the source.	40 CFR Section 60.116b(b); Minn. R. 7011.1520(C)

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Keep a record of each inspection performed as required by 40 CFR Section 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).	40 CFR Section 60.115b(a)(2); Minn. R. 7011.1520(C)
Recordkeeping: Maintain records showing the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period, calculated as described in 40 CFR Section 116b(e).	40 CFR Section 60.116b(c); Minn. R. 7011.1520(C)
REPORTING REQUIREMENTS	hdr
Reporting - Annual Inspection Results: After each inspection required under 40 CFR Section 60.113b(a)(2) or Section 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Section 60.113b(a)(2), a report shall be furnished to the Commissioner within 30 days of the inspection. The report shall indentify the storage vessel and the reason it did not meet the specifications of 40 CFR Section 60.112b(a)(1) or 40 CFR Section 60.113b(a)(3) and the date the storage vessel was emptied or the nature of and the date the repair was made.	40 CFR Section 60.115b(a)(3) and (4); Minn. R. 7011.1520(C)
Notification: Furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3).	40 CFR Section 60.115b(a)(1); Minn. R. 7011.1520(C)
Notification: If an inspection is required (under 40 CFR Section 60.113b(a)(1) or 40 CFR Section 60.113b(a)(4)), notify the Commissioner in writing at least 30 days prior to the filling or refilling of the storage vessel, to afford the Commissioner the opportunity to have an observer present. If the inspection is not planned and the owner or operator could not have known about the inspection 30 days in advance of the refilling the tank, the owner or operator shall notify the Commissioner at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Commissioner at least 7 days prior to refilling.	40 CFR Section 60.113b(a)(5); Minn. R. 7011.1520(C)
Notification: Within 30 days of each occurrence, notify the Commissioner when the maximum true vapor pressure exceeds 5.2 kPa.	40 CFR Section 60.116b(d); Minn. R. 7011.1520(C)
Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1

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Subject Item: **GP 002 Material Handling Baghouse Monitoring Requirements**

Associated Items: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 008 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
POLLUTION CONTROL REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 99 percent collection efficiency . The Permittee shall operate and maintain the fabric filters such that they achieve a 99% percent collection efficiency. This limit applies individually to each fabric filter.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14.
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency . The Permittee shall operate and maintain the fabric filters such that they achieve 99% collection efficiency. This limit applies individually to each fabric filter.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14.
Pressure Drop: less than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14.
Visible Emissions: The Permittee shall check the fabric filter stacks (SV 001 through SV 011) for any visible emissions once each day of operation during daylight hours. During inclement weather, document the pressure drop reading from the previous requirement to satisfy this requirement.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5.
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14.
The Permittee shall operate and maintain the fabric filter in accordance with the control equipment manufacturer's specifications and/or in accordance with Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14.
Calibrate gauges annually, or as often as required by manufacturing specifications and maitain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14.
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4.

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Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14.

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **GP 003 Emergency Units**

Associated Items: EU 026 Fire Pump - test only

EU 027 Emergency Generator - 500 hrs

SV 020 Fire Pump

SV 021 Emergency Generator

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
OPERATING REQUIREMENTS	hdr
Fuel type: No. 2 fuel oil only.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Operating Hours: less than or equal to 500 hours/year using 12-month Rolling Sum to be calculated by the 15th day of each month.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
RECORDKEEPING REQUIREMENTS	hdr
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subp. 4 & 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subp. 4 & 5
Fuel Use: The Permittee shall maintain fuel use records, documenting that only #2 fuel oil is used.	Minn. R. 7007.0800, subp. 4 & 5
NEW SOURCE PERFORMANCE STANDARDS	hdr
The Permittee shall specify stationary diesel engines compliant with NSPS Subpart IIII and obtain all certifications, representations, guidance, and documentation required to be provided under that subpart from the engine manufacturer.	40 CFR Section 60.4205 (b) & (c)
Maintain stationary CI ICE according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.	40 CFR Section 60.4206
Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).	40 CFR Section 60.4207 (a)
Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b).	40 CFR Section 60.4207(b)
The Permitee shall install a non-resettable hour meter prior to startup of the engine.	40 CFR Section 60.4209 (a)

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 001 Grain Receiving Baghouse 1 (CE 001)**

Associated Items: EU 001 Corn Dump Pit/Auger 1

EU 002 Corn Conveyor 1

EU 003 Corn Elevator 1

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 1.38 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 1.38 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 002 Grain Receiving Baghouse 2 (CE 002)**

Associated Items: EU 004 Corn Dump Pit/Auger 2

EU 005 Corn Conveyor 2

EU 006 Corn Elevator 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 1.38 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 1.38 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 003 Trans to Corn Bin 1 Baghouse (CE 003)**

Associated Items: EU 007 Transfer Conveyor 1

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.128 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.128 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 004 Trans to Corn Bin 2 Baghouse (CE 004)**

Associated Items: EU 008 Transfer Conveyor 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.128 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.128 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 005 Reclaim Baghouse (CE 005)**

Associated Items: EU 009 Reclaim System

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.068 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.068 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 006 Grinder Surge Bin Baghouse (CE 006)**

Associated Items: EU 010 Ginder Surge Bin

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.043 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.043 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 007 Hammermill 1 Baghouse (CE 007)**

Associated Items: EU 011 Hammermill 1

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.51 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.51 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 008 Hammermill 2 Baghouse (CE 008)**

Associated Items: EU 012 Hammermill 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.51 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.51 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 009 DDGS Storage Reclaim Baghouse (CE 009)**

Associated Items: EU 013 DDGS Storage Reclaim

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.17 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.17 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 010 Bulkweigher Baghouse (CE 010)**

Associated Items: EU 014 Bulkweigher

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.034 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.034 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 011 DDGS Loadout Baghouse (CE 011)**

Associated Items: EU 015 DDGS Conveyor

EU 016 DDGS Load Spout

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.16 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.16 lbs/hour	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
See GP 002 for monitoring requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Startup to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Startup to measure Particulate Matter < 10 microns emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 026 CO2 Scrubber (CE 027)**

Associated Items: EU 033 Yeast Tank

EU 034 Fermenter 1

EU 035 Fermenter 2

EU 036 Fermenter 3

EU 037 Fermenter 4

EU 038 Beerwell

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: less than or equal to 5.09 lbs/hour	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
POLLUTION CONTROL REQUIREMENTS	hdr
Volatile Organic Compounds: greater than or equal to 95 percent control efficiency	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 6.0 inches of water column or as determined during compliance testing.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Water flow rate: greater than or equal to 55 gallons/minute or as determined during compliance testing.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
MONITORING REQUIREMENTS	hdr
The Permittee shall record the Pressure Drop and Water Flow Rate of each scrubber once each day of operation.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the scrubber at all times that any emission unit controlled by the scrubber is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14.
The Permittee shall operate and maintain the scrubber in accordance with the control equipment manufacturer's specifications and/or in accordance with Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14.
Calibrate gauges annually, or as often as required by manufacturing specifications and maitain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14.
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	Minn. R. 7007.0800, subp. 4.

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop or water flow rate is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber.	Minn. R. 7007.0800, subp. 4, 5, and 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14.
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup to measure VOC emissions	Minn. R. 7017.2020, subp. 1
If compliance testing shows a rolling sum pace, such that Acetaldehyde emissions are projected to exceed the Total Facility Single HAP limit of 9.0 tons per year, the Permittee shall install tanks and dosing equipment necessary to add Sodium Biusulfite or other additive to the scrubber and re-test for Acetaldehyde within 60 days. The rate of additive dosing determined necessary shall become an enforceable parametric condition of this permit. The Permittee may propose alternate measures to control Acetaldehyde emissions.	Title I Condition: To avoid classification as major source under 40 CFR Section 63.2; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **SV 027 Vent Gas Scrubber (CE 028)**

Associated Items: EU 039 Liquefaction Tank

EU 040 Beer Stripper

EU 041 Side Stripper

EU 042 Rectifier

EU 043 Molecular Sieve

EU 044 Evaporator

EU 045 Centrifuge 1

EU 046 Centrifuge 2

EU 047 Centrifuge 3

EU 048 Centrifuge 4

EU 049 Centrate Tank

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: less than or equal to 1.15 lbs/hour	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
POLLUTION CONTROL REQUIREMENTS	hdr
Volatile Organic Compounds: greater than or equal to 95 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 6.0 inches of water column or as determined during compliance testing.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Water flow rate: greater than or equal to 6 gallons/minute or as determined during compliance testing.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
MONITORING REQUIREMENTS	hdr
The Permittee shall record the Pressure Drop and Water Flow Rate of each scrubber once each day of operation.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the scrubber at all times that any emission unit controlled by the scrubber is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14.
The Permittee shall operate and maintain the scrubber in accordance with the control equipment manufacturer's specifications and/or in accordance with Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14.
Calibrate gauges annually, or as often as required by manufacturing specifications and maitain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14.
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	Minn. R. 7007.0800, subp. 4.

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop or water flow rate is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber.	Minn. R. 7007.0800, subp. 4, 5, and 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14.
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup to measure VOC emissions	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **EU 028 Boiler 1**

Associated Items: CE 023 Low NOx Burners

SV 022 Boiler 1

What to do	Why to do it
Nitrogen Oxides: less than or equal to 4.62 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Carbon Monoxide: less than or equal to 4.16 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Fuel Burned: Natural Gas with Propane back-up only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.03 lbs/million Btu heat input . Fuel use limitation satisfies this requirement. PTE = 0.007 lb/MMBtu.	40 CFR Section 60.43c
Sulfur Dioxide: less than or equal to 0.54 lbs/million Btu heat input . Fuel use limitation satisfies this requirement. PTE = 0.00057 lb/MMBtu.	40 CFR Section 60.42c
Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas or propane combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings.	40 CFR Section 60.48c(g)
Initial Performance Test: due 180 days after Initial Startup to measure NOx emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure CO emissions.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **EU 029 Boiler 2**

Associated Items: CE 024 Low NOx Burners

SV 023 Boiler 2

What to do	Why to do it
Nitrogen Oxides: less than or equal to 4.62 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Carbon Monoxide: less than or equal to 4.16 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Fuel Burned: Natural Gas with Propane back-up only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.03 lbs/million Btu heat input . Fuel use limitation satisfies this requirement. PTE = 0.007 lb/MMBtu.	40 CFR Section 60.43c
Sulfur Dioxide: less than or equal to 0.54 lbs/million Btu heat input . Fuel use limitation satisfies this requirement. PTE = 0.00057 lb/MMBtu.	40 CFR Section 60.42c
Initial Performance Test: due 180 days after Initial Startup to measure NOx emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure CO emissions.	Minn. R. 7017.2020, subp. 1

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **EU 050 DDGS Dryer**

Associated Items: CE 029 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

CE 030 Thermal Oxidizer

SV 028 RTO (CE 030)

What to do	Why to do it
Vent all gasses to the RTO (CE 030). If the control equipment breaks down, discontinue feed to the dryer.	Title 1 Condition: Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **EU 051 DDGS Cooler**

Associated Items: CE 030 Thermal Oxidizer

SV 028 RTO (CE 030)

What to do	Why to do it
Vent all gasses to the RTO (CE 030). If the control equipment breaks down, discontinue feed to the dryer.	Title 1 Condition: Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **EU 054 Wetcake - AOS**

Associated Items: CE 032 Other

What to do	Why to do it
Wetcake Storage Limitation: When wetcake by-product is produced, it shall be stored for no longer than 72 hours on-site. In all cases, the wetcake shall be removed from the facility as soon as possible.	Minn. R. 7007.0800, subp. 2.
Recordkeeping: Record date and time of beginning wetcake production and how much was produced. Record date and time wetcake was removed from storage and how much.	Minn. R. 7007.0800, subp. 4 & 5

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **CE 026 Flaring**

Associated Items: EU 031 Non-Dedicated Fleet EtOH Loadout

What to do	Why to do it
The Permittee shall vent all emissions when loading ethanol to non-dedicated fleet trucks, to the flare.	Title I Condition: To limit potential to emit to less than major source levels as defined by 40 CFR Section 52.21 & 40 CFR Section 70.2
Recordkeeping: The Permittee shall maintain a monthly record of the number of gallons of denatured ethanol loaded, to determine compliance with the facility-wide emissions limit and to report emissions from flaring.	Title I Condition: To limit potential to emit to less than major source levels as defined by 40 CFR Section 52.21 & 40 CFR Section 70.2
EMISSION LIMITS	hdr
Flares must be designed for and operated with no visible emissions except for a period not to exceed a total of 5.0 minutes during any 2.0 consecutive hours.	Minn. R. 7007.0800, subp. 14 & 16(J)
OPERATING REQUIREMENTS	hdr
Operating Requirement: Flares shall be operated with a flame present at all times.	Minn. R. 7007.0800, subp. 14 & 16(J)
Operation Requirement: Flame presence shall be monitored using a thermocouple or any other equivalent device.	Minn. R. 7007.0800, subp. 14 & 16(J)
Operating Requirement: Flares shall be used only with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flares is nonassisted.	Minn. R. 7007.0800, subp. 14 & 16(J)
Operation Requirement: Flares shall be operated at all times when emissions may be vented to them.	Minn. R. 7007.0800, subp. 14 & 16(J)
Records Requirement: Keep a record of any startup, shutdown, or malfunction in the affected facility or malfunction of the air pollution control equipment.	Minn. R. 7007.0800, subp. 14 & 16(J)
Summary Report: Submit report quarterly, postmarked by the 30th day following the end of each calendar quarter. Summary report content and format is defined in 40 CFR Section 60.7(d).	Minn. R. 7007.0800, subp. 14 & 16(J)
Summary report submittal frequency may be reduced according to compliance status and notification procedures defined by 40 CFR Section 60.7(e).	Minn. R. 7007.0800, subp. 14 & 16(J)
Recordkeeping: Maintain a file of all measurements, CMS performance evaluations, calibration checks, adjustments and maintenance, and all other information required by this part in permanent form, suitable for inspection for at least two years following the date of such measurements, maintenance, and records.	Minn. R. 7007.0800, subp. 14 & 16(J)
Compliance Requirement: For opacity standards, use Reference Method 9 to determine initial compliance, the minimum total time of observations shall be 3 hours (30-6 minutes averages) for the performance test or other set of observations (meaning those fugitive type emission sources subject only to an opacity standard).	Minn. R. 7007.0800, subp. 14 & 16(J)
Operation Requirement: At all times, including periods of startup, shutdown, and malfunction, owners shall maintain and operate any affected facility in manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	Minn. R. 7007.0800, subp. 14 & 16(J)
Performance and Opacity Tests: Results shall be sent to the Commissioner.	Minn. R. 7007.0800, subp. 14 & 16(J)
Construction and Operation Requirement: Steam assisted flares shall be designed and operated with an exit velocity of less than 60 ft/sec.	Minn. R. 7007.0800, subp. 14 & 16(J)
Construction and Operation Requirement: Steam assisted flares designed and operated with an exit velocity equal to or greater than 60 ft/sec but less than 200 ft/sec are allowed if the heating value of the combustion gas is greater than 1,000 Btu/scf.	Minn. R. 7007.0800, subp. 14 & 16(J)
Construction and Operation Requirement: Steam assisted flares designed and operated with an exit velocity less than Vmax (as determined by the method specified in 40 CFR Section 60.18(f)(5)) and less than 400 ft/sec are allowed.	Minn. R. 7007.0800, subp. 14 & 16(J)
Construction Requirement: Flares used to comply with this section shall be steam assisted, air assisted, or nonassisted.	Minn. R. 7007.0800, subp. 14 & 16(J)
Operation Requirement: Flares shall be monitored to ensure that they are operated and maintained in conformance with their design.	Minn. R. 7007.0800, subp. 14 & 16(J)
Compliance Requirement: Reference Method 22 shall be used to determine the compliance of flares with the visible emissions provisions of this subpart.	Minn. R. 7007.0800, subp. 14 & 16(J)

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

Subject Item: **CE 030 Thermal Oxidizer**

Associated Items: EU 050 DDGS Dryer

EU 051 DDGS Cooler

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 5.15 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Nitrogen Oxides: less than or equal to 11.32 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Volatile Organic Compounds: less than or equal to 7.89 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Carbon Monoxide: less than or equal to 12.91 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
OPERATIONAL REQUIREMENTS	hdr
Volatile Organic Compounds: greater than or equal to 95 percent destruction efficiency . The Permittee shall operate & maintain the Thermal Oxidizer such that it achieves no less than 95 percent destruction efficiency for VOC.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Carbon Monoxide: greater than or equal to 90 percent destruction efficiency . The Permittee shall operate & maintain the Thermal Oxidizer such that it achieves no less than 90 percent destruction efficiency for CO.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Temperature: greater than or equal to 1400 degrees F using 3-hour Rolling Average at the Combustion Chamber unless a new minimum temperature is required set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum temperature is required to be set, it will be based on the average temperature recorded during the most recent MPCA approved performance test where compliance for VOC emissions was demonstrated. If the three-hour rolling average temperature drops below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the average minimum temperature limit is once again achieved. This shall be reported as a deviation.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
MONITORING/RECORDKEEPING	hdr

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The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required.	Minn. R. 7007.0800, subp. 4
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature.	Minn. R. 7007.0800, subp. 4 and 5
Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM emissions.	Minn. R. 7017.2020, subp. 1; 40 CFR Section 60.8(a); 40 CFR Section 63.7
Initial Performance Test: due 180 days after Initial Startup to measure NOx emissions.	Minn. R. 7017.2020, subp. 1; 40 CFR Section 60.8(a); 40 CFR Section 63.7
Initial Performance Test: due 180 days after Initial Startup to measure VOC emissions.	Minn. R. 7017.2020, subp. 1; 40 CFR Section 60.8(a); 40 CFR Section 63.7
Initial Performance Test: due 180 days after Initial Startup to measure CO emissions.	Minn. R. 7017.2020, subp. 1; 40 CFR Section 60.8(a); 40 CFR Section 63.7

Facility Name: Otter Tail Ag Enterprises LLC

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Subject Item: **FS 004 Truck Traffic**

Associated Items: CE 020 Other

What to do	Why to do it
"CE 020 Other" is control measures taken to minimize fugitive dust from truck traffic.	hdr
All haul roads will be paved and maintained. The Permittee shall conduct and keep a written record of yearly inspections of all haul roads for wear and tear and subsequent repairs. All haul roads should use only salt and not sand for wintertime ice abatement. The Permittee shall conduct and keep a written record of weekly visual inspections of all haul roads for visible silt loading. All haul roads will be swept/cleaned monthly or when silt has accumulated to visible levels on the road, whichever occurs first. Speed limit signage: 10 mph on truck entrance road, 30 mph on employee entrance road, 5 mph on all other haul roads.	Minn. R. 7009.0020

Facility Name: Otter Tail Ag Enterprises LLC

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Subject Item: **FS 005 Equipment Leaks**

Associated Items: CE 031 Other

What to do	Why to do it
"CE 031 Other" is control measures taken to minimize emissions resulting from leaks.	hdr
STANDARDS: PUMPS	hdr
Pumps in light liquid service: (a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR Section 60.485(b), except as provided in 40 CFR Section 60.482-1(c) and paragraphs (d), (e), and (f). (2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the seal.	40 CFR Section 60.482-2(b) and (c); Minn. R. 7011.2900
(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (2) If there are indications of liquids dripping from the pump seal, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as proved in 40 CFR Section 60.482-9 (Delay of Repair). (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	40 CFR Section 60.482-2(b) and (c); Minn. R. 7011.2900
STANDARDS: COMPRESSORS	hdr
(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR Section 60.482-1(c) and 40 CFR Section 60.482-3(h) and (i).	40 CFR Section 60.482-3(a); Minn. R. 7011.2900
(b) Each compressor seal system shall be: (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or (2) Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR Section 60.482-10; or (3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.	40 CFR Section 60.482-3(b); Minn. R. 7011.2900
(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. (d) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.	40 CFR Section 60.482-3(c) and (d); Minn. R. 7011.2900
(e)(1) Each sensor shall be checked daily or shall be equipped with an audible alarm. (2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.	40 CFR Section 60.482-3(e); Minn. R. 7011.2900
(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.	40 CFR Section 60.482-3(f); Minn. R. 7011.2900
(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected except as provided in 40 CFR Section 60.482-9 (Delay of Repair). (2) A first attempt at repair shall be made no later than 15 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9.	40 CFR Section 60.482-3(g); Minn. R. 7011.2900
STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE	hdr
(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as determined by the methods specified in 40 CFR Section 60.485(c).	40 CFR Section 60.482-4(a); Minn. R. 7011.2900
(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).	40 CFR Section 60.482-4(b); Minn. R. 7011.2900
STANDARDS: SAMPLING CONNECTION SYSTEMS	hdr
(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR Section 60.482-1(c).	40 CFR Section 60.482-5(a); Minn. R. 7011.2900

(b) Each closed-purge, closed-loop, or closed-vent system shall: (1) Return the purged process fluid directly to the process line; or (2) Collect and recycle the purged process fluid to a process; or (3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR Section 60.482-10. (c) In situ sampling systems are exempt from these requirements.	40 CFR Section 60.482-5(b) and (c); Minn. R. 7011.2900
STANDARDS: OPEN ENDED VALVES OR LINES	hdr
(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR Section 60.482-1(c). (2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.	40 CFR Section 60.482-6(a); Minn. R. 7011.2900
(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.	40 CFR Section 60.482-6(b) and (c); Minn. R. 7011.2900
STANDARDS: VALVES	hdr
(a) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR Section 60.485(b).	40 CFR Section 60.482-7(a); Minn. R. 7011.2900
(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. (2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.	40 CFR Section 60.482-7(b) and (c); Minn. R. 7011.2900
(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR Section 60.482-9. (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	40 CFR Section 60.482-7(d); Minn. R. 7011.2900
(e) First attempts at repair include, but are not limited to, the following best practices where practicable: (1) Tightening of bonnet bolts; (2) Replacement of bonnet bolts; (3) Tightening of packing gland nuts; (4) Injection of lubricant into lubricated packing.	40 CFR Section 60.482-7(e); Minn. R. 7011.2900
STANDARDS: PUMPS AND VALVES IN HEAVY LIQUID SERVICE, PRESSURE RELIEF DEVICES IN LIGHT LIQUID OR HEAVY LIQUID SERVICE, AND FLANGES AND OTHER CONNECTORS	hdr
(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service and flanges and other connectors shall be monitored within 5 days by the method specified in 40 CFR Section 60.485(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.	40 CFR Section 60.482-8(a); Minn. R. 7011.2900
(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected except as provided in 40 CFR Section 60.482-9 (Delay of Repair). (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	40 CFR Section 60.482-8(b) and (c); Minn. R. 7011.2900
(d) First attempts at repair include, but are not limited to, the best practices described under 40 CFR Section 60.482-7(e).	40 CFR Section 60.482-8(d); Minn. R. 7011.2900
DELAY OF REPAIR	hdr
(a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. (b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.	40 CFR Section 60.482-9(a) and (b); Minn. R. 7011.2900
(c) Delay of repair for valves will be allowed if: (1) The owner or operator demonstrates that emissions of purged material resulting from the immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR Section 60.482-10.	40 CFR Section 60.482-9(c); Minn. R. 7011.2900

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(d) Delay of repair for pumps will be allowed if: (1) Repair required the use of a dual mechanical seal system that includes a barrier fluid system, and (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.	40 CFR Section 60.482-9(d); Minn. R. 7011.2900
(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.	40 CFR Section 60.482-9(e); Minn. R. 7011.2900
TESTING PROCEDURES	hdr
Compliance shall be determined by the methods specified in 40 CFR Section 60.485.	40 CFR Section 60.486(b); Minn. R. 7011.2900
RECORDKEEPING	hdr
(b) When each leak is detected, the following requirements apply: (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR Section 60.482-7(c) and no leak has been detected during those 2 months. (3) The identification on equipment except on a valve may be removed after it has been repaired.	40 CFR Section 60.486(b); Minn. R. 7011.2900
(c) When each leak is detected the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: (1) The instrument and operator identification numbers and the equipment identification number. (2) The date the leak was detected and the dates of each attempt to repair the leak. (3) Repair methods applied in each attempt to repair the leak. (4) Above 10,000 is the maximum instrument reading measured by the methods specified in 40 CFR Section 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.	40 CFR Section 60.486(c); Minn. R. 7011.2900
(5) Repair delayed and the reason for the delay if a leak is not repaired within 15 calendar days after discover of the leak. (6) The signature of the owner or operator whose decision it was that the repair could not be effected without a process shutdown. (7) The expected date of successful repair of the leak if a leak is not repaired within 15 days. (8) Dates of process unit shutdown that occurs while the equipment is unrepaired. (9) The date of successful repair of the leak.	40 CFR Section 60.486(c); Minn. R. 7011.2900
REPORTING REQUIREMENTS	hdr
(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.	40 CFR Section 60.487(a); Minn. R. 7011.2900
(b) The initial semiannual report to the Administrator shall include the following information: (1) Process unit identification, (2) Number of valves subject to the requirements of 40 CFR Section 60.482-7, (3) Number of pumps subject to the requirements of 40 CFR Section 60.482-2, (4) Number of compressors subject to the requirements of 40 CFR Section 60.482-3.	40 CFR Section 60.487(b); Minn. R. 7011.2900
(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR Section 60.486; (1) Process unit identification, (2) For each month during the semiannual reporting period, (i) Number of valves for which leaks were detected as described in 40 CFR Section 60.482(7)(b) or 40 CFR Section 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR Section 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR Section 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR Section 60.482-2(c)(1) and (d)(6)(ii),	40 CFR Section 60.487(c); Minn. R. 7011.2900
(v) Number of compressors for which leaks were detected as described in 40 CFR Section 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR Section 60.482-3(g)(1), (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.	40 CFR Section 60.487(c); Minn. R. 7011.2900

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(3) Dates of process unit shutdowns which occurred within the semiannual reporting period. (4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.	40 CFR Section 60.487(c); Minn. R. 7011.2900
(e) Report the results of all performance tests in accordance with 40 CFR Section 60.8. The provisions of 40 CFR Section 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except than an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.	40 CFR Section 60.487(e); Minn. R. 7011.2900

TABLE B: SUBMITTALS

Facility Name: Otter Tail Ag Enterprises LLC

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Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:
- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

What to send	When to send	Portion of Facility Affected
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup.	GP001
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began.	GP001
Testing Frequency Plan	due 60 days after Initial Performance Test for CO emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE030, EU028, EU029
Testing Frequency Plan	due 60 days after Initial Performance Test for NOx emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE030, EU028, EU029
Testing Frequency Plan	due 60 days after Initial Performance Test for PM emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE030, SV001, SV002, SV003, SV004, SV005, SV006, SV007, SV008, SV009, SV010, SV011
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV001, SV002, SV003, SV004, SV005, SV006, SV007, SV008, SV009, SV010
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV011
Testing Frequency Plan	due 60 days after Initial Performance Test for VOC emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE030
Testing Frequency Plan	due 60 days after Initial Performance Test for VOC emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV026
Testing Frequency Plan	due 60 days after Initial Performance Test for VOC emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV027

TABLE B: RECURRENT SUBMITTALS

Facility Name: Otter Tail Ag Enterprises LLC

Permit Number: 11100077 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occured, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL
Facility Name: Otter Tail Ag Enterprises LLC
Permit Number: 11100077-001
Appendix I: Insignificant Activities

Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(A)	Fuel use: space heaters fueled by propane may be used in the winter to defrost equipment. *Less than 30,000 MMBTU/hr capacity.*	Minn. R. 7011.0510/0515
3(E)	Storage tanks:	
	Gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons; *The facility may have gasoline storage tanks for lawn mowers and other small equipment in portable 1-10 gallon fuel cans.*	Minn. R. 7011.0710/0715
3(G)	Emissions from a laboratory, as defined in the subpart. *The facility will have a product testing laboratory.*	Minn. R. 7011.0510/0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
3(H)	Miscellaneous:	
	Brazing, soldering or welding equipment; *The facility may perform welding activities associated with facility maintenance.*	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
	Blueprint copiers and photographic processes; *Normal scale office equipment will be present at the facility office.*	Minn. R. 7011.0105/0110
3(J)	Fugitive Emissions from roads and parking lots. *All main facility haul roads will be paved. There may exist pull-offs, parking spaces, or unpaved areas where a vehicle could drive, but does not do so on a regular basis.*	Minn. R. 7011.0150
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary	Minn. R. 7011.0710/0715

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
	source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment. *Small scale spray painting may occur, but only associated with construction of maintenance activities.*	

Additional Pre-Approved Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Fuel use: space heaters fueled by, kerosene, natural gas, or propane	PM $\leq$ 0.6 or 0.4 lb/MMBtu, depending on year constructed Opacity $\leq$ 20% with exceptions (Minn. R. 7011.0510/515)	For this unit, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these types of units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Infrared electric ovens	Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110)	These units are not likely to have any emissions of particulate matter at this site (used to dry off VOCs). It is highly unlikely that they could violate the applicable requirement.
Fuel burning equipment with a capacity less than 500,000 Btu/hour, etc.	PM $\leq$ 0.6 or 0.4, depending on year constructed Opacity $\leq$ 20% with exceptions (Minn. R. 7011.0510/515)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirements.
Cleaning operations: commercial laundries, not including dry cleaners and industrial launderers	Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110))	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate visible emissions.
Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(G)	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Open tumblers with a batch capacity of 1,000 pounds or less	PM, variable depending on airflow Opacity $\leq$ 20%	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are vented inside a

Insignificant Activity	General Applicable Emission limit	Discussion
	(Minn. R. 7011.0710/715)	building, so testing for PM or opacity is not feasible.
Equipment used for hydraulic or hydrostatic testing	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate particulate matter. In addition, these units would be operated and vented directly into a building, so testing is not feasible.
Brazing, soldering or welding equipment	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Blueprint copiers and photographic processes	Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110))	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate visible emissions. In addition, these units would be operated and vented directly into an office area, so monitoring or testing is not feasible.
Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0610+ Minn. R. 7011.0710/715)	For these units, there are some factors available for the burners, but very little information regarding the cleaning operation itself. However, based on general knowledge of how they operate, it is highly unlikely that they could violate the applicable requirement or that testing would be feasible.
Individual units with actual emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity $\leq$ 20% (with exceptions) (Minn. R. 7011.0715 and Minn. R. 7011.610) or $SO_2 \leq$ 0.5 lb/MMBtu Opacity $\leq$ 20% (Minn. R. 7011.2300)	These are 4 natural gas combustion units, an emergency generator, and a specialty mixing area. For the natural gas units and generator, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, all of these units are operated and vented inside a building, so testing for PM or opacity is not feasible. The mixing area is not expected to generate particulate matter.
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not	PM, variable depending on airflow or process weight rate Opacity $\leq$ 20%	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and

Insignificant Activity	General Applicable Emission limit	Discussion
associated with primary production processes at the stationary source	(Minn. R. 7011.0715)	usually occur outdoors. Testing or monitoring is not feasible.
Equipment venting PM/PM_{10} inside a building, provided that emissions from the equipment are: a). filtered through an air cleaning system; and b). vented inside of the building 100% of the time	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are vented inside a building, so testing for PM or opacity is not feasible.

Appendix II: NSPS Subpart IIII Definitions

§ 60.4219

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Appendix III Modeling Data

Microsoft Excel
Worksheet

Appendix IV: Odor Management Plan

Otter Tail Odor BMP Plan.pdf

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 11100077-001

This Technical Support Document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: **2869**)
Otter Tail Ag Enterprises LLC 1220 Tower Road N Suite 201 Fergus Falls, MN 56537	Western Half of Section 20 Township 133N Fergus Falls Otter Tail County
Contact: Jerry Larson Phone: 218-998-4301	

1.2 Description of the Permit Action

Otter Tail Ag Enterprises LLC (Company) is a proposed fuel-grade ethanol production facility (Facility) to be located near Fergus Falls, Minnesota. The Facility has a design capacity of 65 million gallons of undenatured ethanol. The Facility will also produce Distillers Dried Grains and Solubles (DDGS) for animal feed as a by-product of the ethanol production process. Emission sources at the Facility include fermentation, distillation, DDGS handling and drying, combustion sources, storage tanks, production loadout, and fugitive sources such as grain handling and dust from haul roads.

The primary emissions are Volatile Organic Compounds (VOC), Particulate Matter (PM) Particulate Matter less than 10 microns in size (PM_{10}), Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Acetaldehyde (single HAP). VOCs are emitted by fermentation, distillation, DDGS drying, wetcake production and storage, ethanol loading, and VOC liquid storage and piping. PM/PM_{10} is emitted by DDGS handling and drying, corn receiving and handling, and vehicle traffic. NO_x and CO are emitted by combustion sources.

The primary pieces of control equipment are fabric filters, wet scrubbers, multiclones and a thermal oxidizer. The scrubber controls emissions from the fermentation and distillation units including the beer well, evaporators and centrifuges; and the thermal oxidizer controls emissions from the Dryers, distillation process and DDGS coolers. A flare is use to control emissions from truck and rail ethanol loadout. Baghouses control PM/PM_{10} from the corn and DDGS handling and storage systems and the Truck/Rail Loadout area. There are internal floating roof tanks for ethanol, denaturant, and denatured ethanol. Emissions from process valves and piping will be controlled through an inspection and maintenance program.

1.3 Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM (tpy)	PM_{10} (tpy)	SO_2 (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)	HAPs (tpy) Single	HAPs (tpy) All
Total Facility Limited Potential Emissions	79.1	63.4	13.8	94.9	94.9	94.9	9.0	12.4

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		PM, PM_{10}, NO_x, CO, VOC	SO_2
Part 70 Permit Program		PM, PM_{10}, NO_x, CO, VOC, HAP	SO_2
Part 63 NESHAP		HAP	

2. Regulatory and/or Statutory Basis

New Source Review

The Facility has accepted federally enforceable limits to keep their potential to emit below major source thresholds for all criteria pollutants and hazardous air pollutants and, therefore, is not subject to New Source Review.

Part 70 Permit Program

The Facility has accepted limits on their potential-to-emit such that they are classified as a minor source, (synthetic), and are not subject to requirements of the Part 70 Permit Program.

New Source Performance Standards (NSPS)

NSPS Subpart Dc applies to the two boilers because they are each rated at 92.8 MMBtu/hr, which is above 10 MMBtu/hr and below 100 MMBtu/hr. Five product storage tanks are subject to NSPS Subpart Kb. The Facility is a chemical process plant with organic components in liquid service and is subject to NSPS Subpart VV. The Emergency Diesel Generator and Emergency Fire Pump are subject to NSPS for Diesel Engines, (Compression Ignition Engines,) Subpart IIII Regulations.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The Facility has accepted limits on emission of Hazardous Air Pollutants such that they are classified as a non-major source and are not subject to NESHAPs.

Minnesota State Rules

Portions of the Facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.1005 Standards of Performance for Dry Bulk Agricultural Commodity facilities
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
FC	Title I limits to avoid major source classification 40 CFR pt. 50; Minn. R. 7009.0020	Limit on annual ethanol production to avoid classification as a major source under the federal Prevention of Significant Deterioration (PSD) program and Part 70. Annual limit on hazardous air pollutants (HAP) emissions to avoid major source classification under NESHAPs. Requirements to comply with National Primary and Secondary Ambient Air Quality Standards and Minnesota Ambient Air Quality Standards, including remodeling and diesel emissions language.
GP001	40 CFR pt. 60, subp. Kb	Requirements for storage tanks for volatile organic liquids required to have a floating roof.
GP002	Title I conditions to avoid PSD & Part 70	Standard baghouse operation and monitoring requirements, including control efficiency.
GP003	Title I conditions to avoid PSD & Part 70; Minn. R. 7011.2300 40 CFR pt. 60, subp. IIII	Limit on type of fuel and hours of operation. Minnesota performance standard for SO2 and opacity. NSPS for IC Engines; includes certifications and non-resetting hour-meter requirements.
SV001 – SV 011	Title I conditions to avoid PSD & Part 70 Minn. R. 7011.1005	Limits on PM and PM_{10}. Minnesota performance standard for bulk agricultural commodities, limits opacity.
SV026 SV027	Title I conditions to avoid PSD & Part 70	Limit on VOC.
EU028 EU029	Title I conditions to avoid PSD & Part 70 40 CFR pt. 60, subp. Dc	Limits on NOx and CO. Fuel use limitation satisfies PM & SO_2 limits. (PTE is much less than the limit.)
CE030	Title I conditions to avoid PSD & Part 70	Limits on PM, NOx, VOC, & CO.
FS004	Minn. R. 7009.0020	Requirements on fugitive dust emissions from vehicle traffic, ensuring compliance with Minnesota Ambient Air Quality Standards.
FS005	40 CFR pt. 60, subp. VV	Requirements on best management practices, regarding equipment leaks.

The language 'This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act' refers to permit requirements that are mandated by state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required by state law. State law requirements are not enforceable by EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical Information

3.1 Calculations of Potential to Emit

Spreadsheets, included with the permit application, are attached to this TSD and contain information on each piece of equipment regarding PTE and actual emissions projections. In summary, performance test data on critical pieces of equipment at several existing ethanol plants were analyzed by the consulting firm; upper confidence levels were used to determine PTE; and averages were used to determine projected actual emissions. Calculations for less critical pieces of equipment, for which standard AP-42 emission factors and equations were used, are also included in the attachments.

3.2 Ambient Air Impact Modeling

The Company included modeling for PM_{10} with the application. The modeling demonstrated compliance with Ambient Air Standards. Data used in the modeling is attached to the permit.

3.3 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Periodic Monitoring

EU/GP	Requirement (basis)	Additional Monitoring	Discussion
FC	Title I Conditions to avoid PSD & Part 70	Recordkeeping	Records of ethanol production
GP001	40 CFR 60 subp. Kb floating roof requirements	None	Subpart Kb contains sufficient monitoring, recordkeeping and reporting
GP002	Title I Conditions to avoid major source classification and Minn. R. for control equipment	Standard baghouse requirements, such as daily pressure drop and visible emissions checks, records, and O & M plan.	This group is purely periodic monitoring for all of the baghouses with limits listed at stacks SV001-SV011.
GP003	Opacity $\leq$ 20 % $SO_2 \leq$ 0.5 lb/million Btu Operating hours $\leq$ 500/yr Title I Conditions to avoid PSD & Part 70; Minn. R. 7011.2300	Records of fuel type used. Hour meter	Ensures the restriction on fuel use, (diesel fuel oil), which guarantees meeting this limit, and fuel supplier certification is required. 40 CFR pt. 60, subp. IIII requires installation and use of an hour-meter.
SV001	$PM / PM_{10} \leq$ 1.38 lb/hr	Baghouse monitoring requirements found at GP002	Title I Conditions to avoid PSD & Part 70 Minn. R. 7011.1005 These limits apply separately to each stack
SV002	$PM / PM_{10} \leq$ 1.38 lb/hr		
SV003	$PM / PM_{10} \leq$ 0.128 lb/hr		
SV004	$PM / PM_{10} \leq$ 0.128 lb/hr		
SV005	$PM / PM_{10} \leq$ 0.068 lb/hr		
SV006	$PM / PM_{10} \leq$ 0.043 lb/hr		
SV007	$PM / PM_{10} \leq$ 0.51 lb/hr		
SV008	$PM / PM_{10} \leq$ 0.51 lb/hr		
SV009	$PM / PM_{10} \leq$ 0.17 lb/hr		
SV010	$PM / PM_{10} \leq$ 0.034 lb/hr		
SV011	$PM / PM_{10} \leq$ 0.16 lb/hr		
SV026	VOC $\leq$ 5.09 lb/hr	Standard scrubber requirements, such as daily pressure drop and water flow rate readings, records, and O & M plan.	Title I Conditions to avoid PSD, Part 70, and Part 63
SV027	VOC $\leq$ 1.15 lb/hr		
EU028	$NO_x \leq$ 4.62 lb/hr CO $\leq$ 4.16 lb/hr Title I Conditions to avoid PSD & Part 70 PM $\leq$ 0.03 lb/MMBtu (0.007) $SO_2 \leq$ 0.54 lb/MMBtu (0.00057) 40 CFR pt. 60, subp. Dc	None	Hourly limits (NO_x, CO) are set at vendor guarantees; actual emissions projections are lower; and performance testing is required to demonstrate emission rates. PTE in parenthesis
EU029			
CE030	PM $\leq$ 5.15 lb/hr $NO_x \leq$ 11.32 lb/hr VOC $\leq$ 7.89lb/hr CO $\leq$ 12.91 lb/hr	Standard Thermal Oxidizer monitoring, such as minimum temperature, continuous monitoring, and recordkeeping	Title I Conditions to avoid PSD, Part 70, and Part 63
FS004	$PM_{10} \leq 150 \mu g/m^3$ per 24-hour period $PM_{10} \leq 50 \mu g/m^3$ annually	Road pavement and dust accumulation inspections, corrective actions, and records. Speed limits.	Minn. R. 7009.0020 To ensure modeled compliance with 24-hour and annual NAAQS and MAAQS.

EU/GP	Requirement (basis)	Additional Monitoring	Discussion
FS005	VOC ≤ 95 tpy 40 CFR 60, Subp. VV	None	Title I Conditions to avoid PSD & Part 70 Subpart VV has periodic monitoring to ensure minimization of VOC emissions from leaks.

3.4 Insignificant Activities

The Company has several operations which are classified as insignificant activities. These are listed below and in Appendix I to the permit.

3.5 Permit Organization

The permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

3.6 Comments Received

Public Notice Period: September 18, 2006 – October 18, 2006

No Comments were received from EPA.

Comments/questions were received from adjacent land owners during the public notice period. The comments/questions received did not include adverse comments on any applicable requirements of the permit. Changes to the permit were not made as a result of the comments. The MPCA response to the comments/questions received are attached to this TSD.

4. Conclusion

Based on the information provided by Otter Tail Ag Enterprises LLC, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 11100077-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Jessica Forsberg (permit writer/engineer)
Cary Hernandez (enforcement)
Andy Place (stack testing)
Dave Beil (peer reviewer)

Attachments:
1. PTE Calculations
2. Response to Comments

Attachment 1: PTE Calculations

Attachment 2: Response to Comments